



Southern Nuclear

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Docket No: 50-425

NL-20-1407

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2020-001-00
Transformer failure leads to main generator trip and subsequent reactor trip

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(iv)(A), Southern Nuclear Operating Company is submitting the enclosed Licensee Event Report, 2020-001-00 for Vogtle Electric Generating Plant Unit 2. This letter contains no NRC commitments. If you have any questions, please contact Matthew Horn at (706) 848-1544.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "R. Drayton Pitts".

Drayton Pitts
Site Vice President
Vogtle 1&2

RDP/KCW

Enclosure: Unit 2 Licensee Event Report 2020-001-00

Cc: Regional Administrator
NRR Project Manager – Vogtle 1 & 2
Senior Resident Inspector – Vogtle 1 & 2
RType: CVC7000

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2020-001-00
Transformer failure leads to main generator trip and subsequent reactor trip

Enclosure

Unit 2 Licensee Event Report 2020-001-00



LICENSEE EVENT REPORT (LER)

(See Page 3 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 60 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (7-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollcts.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk all: oina_submission@omb.eop.gov. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. Facility Name Vogtle Electric Generating Plant	2. Docket Number 05000425	3. Page 1 OF 2
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4. Title
Transformer failure leads to main generator trip and subsequent reactor trip

5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved	
Month	Day	Year	Year	Sequential Number	Rev No.	Month	Day	Year	Facility Name	Docket Number
11	12	2020	2020	- 001 -	00	01	08	2021	N/A	05000
									Facility Name	Docket Number
									N/A	05000

9. Operating Mode

1

10. Power Level

100

11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)

<input checked="" type="checkbox"/> 10 CFR Part 20	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input checked="" type="checkbox"/> 10 CFR Part 73
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input checked="" type="checkbox"/> 10 CFR Part 21	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(1)(i)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(i)
<input type="checkbox"/> 20.2203(a)(2)(iii)	<input checked="" type="checkbox"/> 10 CFR Part 50	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 73.77(a)(2)(ii)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	
<input type="checkbox"/> Other (Specify here, in Abstract, or in NRC 366A).				

12. Licensee Contact for this LER

Licensee Contact

Vogtle Electric Generating Plant, Matthew Horn, Regulatory Affairs Manager

Phone Number (Include Area Code)

706-848-1544

13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable To IRIS	Cause	System	Component	Manufacturer	Reportable To IRIS
B	EL	XFMR	SIEMENS	Y	N/A	N/A	N/A	N/A	N/A

14. Supplemental Report Expected

☒ No ☐ Yes (If yes, complete 15. Expected Submission Date)

15. Expected Submission Date

Month	Day	Year
N/A	N/A	N/A

16. Abstract (Limit to 1560 spaces, i.e., approximately 15 single-spaced typewritten lines)

On November 12, 2020 at approximately 1732 EST with Unit 2 in Mode 1 and 100 percent power, the reactor automatically tripped due to a main generator trip and subsequent turbine trip. The reason for the generator trip was a fault in the B-phase main step-up transformer. The trip was not complex with all systems responding normally post trip. Operations stabilized the plant in Mode 3. Decay heat was removed by the steam generators, through the steam dumps into the condenser. Unit 1 was not affected. The operating crew performed as expected. The faulted transformer was removed from service and an installed spare transformer was placed in service.

Due to the automatic Reactor Protection System (RPS) actuation and the automatic actuation of the Auxiliary Feedwater (AFW) system, this event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A).

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk, ira_submission@omb.eop.gov. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Vogtle Electric Generating Plant	05000425	2020	- 001	- 00

NARRATIVE**A. Event Description**

On November 12, 2020 at approximately 1732 EST with Unit 2 in Mode 1 and 100 percent power, the reactor automatically tripped due to a generator trip and subsequent turbine trip. The reason for the generator trip was a fault in the B-phase main step-up transformer (XFMR), Siemens model 351-18210. This caused the generator to trip. Due to the generator and turbine trip, the reactor tripped.

There were no other Structures, Systems, or Components (SSCs) that were out of service that were inoperable at the beginning of the event and contributed to the event.

Due to the automatic Reactor Protection System (RPS)[JC] actuation and the automatic actuation of the Auxiliary Feedwater (AFW)[BA] system, this event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A).

B. Cause of Event

The cause of the main step-up transformer fault was an internal fault around the Deenergized Tap Changer (DETC). There were no previous indications that there were any issues with this transformer.

C. Safety Assessment

The main step-up transformers serves no safety related purpose for the unit. When the transformer failed, all the appropriate safety systems responded as designed. The generator, turbine, reactor, and Auxiliary Feedwater system operated as expected; all the control rods fully inserted into the core. The operating crew performed as expected. The event was within the analysis of the Updated Final Safety Analysis Report Chapter 15. There was no release of radioactivity. This event did not pose a threat to the health and safety of the public. Therefore, the safety significance of this issue is very low.

D. Corrective Actions

The faulted transformer was removed from service and the switchyard was realigned to place the spare main step-up transformer into service. The remaining main step-up and the spare step-up transformers were thoroughly checked while the unit was offline to ensure that there were no abnormal indications, and none were found.

E. Previous Similar Events

None